

# Summary of Guidelines for the Control of a Suspected or Confirmed Outbreak of Viral Gastroenteritis (Norovirus) in an Assisted Living Facility or Nursing Home

## Summary

The following is a summary of guidelines developed to help facilities control a suspected or confirmed outbreak of viral gastroenteritis (norovirus). The complete guidelines are available on the Virginia Department of Health website (<http://www.vdh.virginia.gov/Epidemiology/Surveillance/norovirus.htm>) and may be consulted for details.

**PLEASE CONTACT YOUR LOCAL HEALTH DEPARTMENT FOR ASSISTANCE AS SOON AS AN OUTBREAK IS SUSPECTED.**

## Background

Symptoms of norovirus typically begin 12-48 hours after exposure and symptoms usually include nausea, vomiting, diarrhea, and stomach cramping. Sometimes, people have a low-grade fever, chills, headache, muscle aches, and/or a general sense of tiredness. The illness is usually brief, with symptoms lasting 1-2 days. A more prolonged course of illness may last 4-6 days in elderly persons or those who have been hospitalized. There is no cure and no vaccine for norovirus. Treatment is supportive and involves ensuring that ill persons are adequately hydrated.

Laboratory testing and confirmation can provide important information about the organism causing disease. However, the cause of an outbreak is likely to be due to norovirus when:

- Stools are negative for bacterial pathogens
- The average incubation period is 12-48 hours
- The average duration of illness is 1-3 days
- Vomiting occurs in at least 50% of cases

The virus is found in the vomit and stool of infected people. A person can become infected with norovirus by touching contaminated surfaces or objects and then his/her mouth before hand washing, having direct contact with a person who is ill and then touching his/her mouth before hand washing, or eating food or drinking liquids that have been contaminated by ill food handlers. Hand washing and appropriate environmental cleaning are *essential* to prevent the spread of this disease.

In general, an outbreak is defined as the presence of more sickness than would usually be expected in the facility, or in a particular unit, for that time of year. A basic threshold for a suspected norovirus outbreak might be three or more cases of illness (vomiting and/or diarrhea with no other apparent cause) among residents and/or staff within a 72-hour period.

Your facility is required to report any suspected outbreak to your local health department. The health department will provide assistance by helping identify potential sources of the outbreak and making recommendations to stop the spread of disease. Stool specimens may be collected and transported to the state laboratory for testing.

### *Prevention/Management*

Norovirus is **highly contagious and very hardy** [can survive freezing and heating to 60°C (140°F)], so strict adherence to control measures is necessary. Preventive measures should be continued for at least four days after the outbreak appears over, since infected persons continue to shed the virus after they have recovered. The virus can be detected in an individual's stool for up to 4 weeks following infection, although peak viral shedding occurs 2-5 days after infection.

1. Isolate ill residents from others by keeping them in their rooms, including serving meals in their rooms while symptomatic and for at least 24 hours after symptoms resolve. Discontinue activities where ill and well residents would be together; this includes congregating in communal areas like TV rooms and snack break areas. Group activities should be kept to a minimum or postponed until the outbreak is over. Residents should not be moved from an affected to an unaffected unit.
  - Asymptomatic individuals, especially those with cognitive impairment or those who might not reliably report illness or tend to their hygiene, may also need to be confined to their rooms to control the spread of illness. In some situations, confinement of all individuals may be necessary if other control measures have not been or may not be effective.
2. Staff who develop symptoms at work should go home immediately. Ill staff should report their illness to their supervisors. Food service workers should be excluded from food preparation activities for 48 hours after vomiting and/or diarrhea cease. Non-food service workers who become ill may return to their usual activities 24 hours after vomiting and/or diarrhea cease.
3. Minimize the flow of staff between sick and well residents. Staff should be consistently assigned to work with either well residents **or** sick residents, not both groups; this includes care providers as well as housekeeping staff.
4. Staff should wash their hands when entering and leaving *every* resident room. Alcohol-based hand rubs/gels may be used when hand washing with soap and water is not available ( $\geq 70\%$  % ethyl alcohol).
5. Staff should wear gloves and gowns when caring for ill residents or when touching potentially contaminated surfaces. Masks should be worn when caring for residents who are vomiting. Change gowns, gloves, and masks between contacts with roommates. Gloves should be discarded and hands washed immediately after completing resident care. Remove gowns before leaving the resident's environment. Housekeeping staff should wear gloves and masks when cleaning contaminated or potentially contaminated surfaces or laundry.
6. Use a disinfectant to frequently disinfect all heavy hand contact surfaces. Restroom surfaces, such as faucet handles, soap dispensers, stall doors and latches, toilet seats and handles, and towel dispensers are heavily contaminated surfaces and require frequent disinfection.
  - The recommended disinfectant is *freshly made* 10% chlorine bleach solution (i.e., 5,000 ppm sodium hypochlorite = 1 cup bleach to 9 cups water). Since chlorine bleach may affect fabrics and other surfaces, spot test area before applying to any visible surface. If chlorine bleach is not used in your facility, there are other commercial products that have been approved by the Environmental Protection Agency (EPA) to be effective for use against

norovirus. A list of EPA-approved products is available at [http://www.epa.gov/oppad001/list\\_g\\_norovirus.pdf](http://www.epa.gov/oppad001/list_g_norovirus.pdf).

- For contamination with fecal material, the cleaning process should include:
  - 1) removal of visible soil with detergent and water
  - 2) disinfection with 10% bleach solution (a contact time of ten minutes may be necessary).

If the area is a food contact area, this disinfection procedure should be followed by a clear-water rinse, and a final wipe down with a sanitizing bleach solution (i.e., 200 ppm sodium hypochlorite = 0.5% chlorine bleach = one tablespoon bleach to one gallon of water) or other EPA-approved product.

- Vomit should be considered as potentially infectious material and should be **immediately** covered with a disposable cloth or paper towels. The cloth should be saturated with a disinfectant to reduce potential airborne contamination. Cleaning staff should use disposable face masks, gloves, and aprons when cleaning up after a vomiting incident. Paper toweling or other toweling used to clean-up liquid vomit should be immediately placed in a sealed trash bag and properly disposed. Follow the same cleaning procedures as for fecal contamination.
  - Heat disinfection (i.e., pasteurization) has been suggested for items that cannot be subjected to chemical disinfectants. A temperature equal to or greater than 60°C (140°F) should be used.
7. Cleaning procedures that might result in aerosolization of norovirus (e.g., dry vacuuming carpets, dry dusting, or buffing hard surface floors) should **not** be utilized. Cleaning with detergent and hot water, followed by disinfection with hypochlorite (if a bleach-resistant surface) or steam cleaned (5-minute contact time at a minimum temperature of 170°F) is preferred.
  8. Contaminated linen and bed curtains should be carefully placed into laundry bags (to prevent generating aerosols) and washed separately in hot water for a complete wash cycle – ideally as a half load for best dilution. Wear gloves (and apron or gown if soiled laundry will touch clothing) when handling soiled laundry.
  9. Air currents generated by open windows, fans, or air conditioning may disperse aerosols widely. Air currents should be minimized.
  10. It may be prudent to discontinue new admissions and/or visitation to the facility until the outbreak is over. If visitation is allowed, visitors should go directly to the person they are visiting and not spend time with anyone else. Visitors should wash their hands upon entering and leaving the room. They should not visit if they are sick and should refrain from visiting until three days after their symptoms resolve.
  11. If your facility plans to discharge a resident during a norovirus outbreak, your facility has the responsibility to notify the receiving facility that an outbreak is going on, even if that resident is not symptomatic. A facility has the right to decline an admission during a known communicable disease outbreak.

## INFECTION PREVENTION MEASURES: CHECK SHEET

### HAVE YOU...?

- ☐ Informed all **staff, visitors, and residents** of the situation and what they need to do?
- ☐ Ensured **all staff with symptoms** are **excluded from work** (until 48 hours after resolution of symptoms for food handlers, 24 hours for all other employees)?
- ☐ Allocated **dedicated staff** to care for unwell residents, whenever possible?
- ☐ Provided all staff with **information and training** in infection control precautions?
- ☐ Ensured that all **residents** have their **hands washed** after going to the toilet, before meals, and after any episode of diarrhea or vomiting?
- ☐ **Separated well residents** from unwell residents, wherever possible, for at least 24 hours after resolution of symptoms?
- ☐ **Avoided transferring** residents to other institutions while cases of gastrointestinal illness are occurring, or, if a transfer is necessary, ensured receiving institution has been **notified** of the outbreak?
- ☐ Whenever possible, **restrict admissions** of new residents until cases of gastrointestinal illness have resolved?
- ☐ Considered **posting signs** at appropriate locations throughout the facility?
- ☐ Asked **visitors who report any symptoms** to avoid visiting until 72 hours after symptoms cease?
- ☐ Ensured all **staff and visitors wash their hands** before and after all resident contact?
- ☐ Ensured **sufficient soap and/or alcohol-based hand rubs or gels**, and hand-drying facilities are available?
- ☐ Provided sufficient **gloves, gowns, aprons, masks, goggles, face shields** and ensured that they are easily accessible?
- ☐ Ensured **cleaning and other relevant staff** are aware of the correct **cleaning procedures** and the importance of hand washing?
- ☐ Ensured **catering staff** are aware of the precautions required in **food service** area and the importance of hand washing?
- ☐ Ensured all staff are aware of the precautions required when handling **soiled linen**?
- ☐ Ensured **laundry staff** are aware of the correct **laundering procedures** and the importance of hand washing?